

JAN 22 2016

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# A BILL FOR AN ACT

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RELATING TO EDUCATION.

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:**

1       SECTION 1. The legislature finds that an electricity grid  
2 is not always an economical or practical option in developing  
3 countries, leaving large areas and populations without a modern  
4 electrical grid system. However, developing countries often  
5 have abundant renewable energy resources. Aid organizations  
6 have long tapped into solar power to generate electricity to  
7 support refrigeration without electrical backup. These  
8 refrigeration units operate during the day, rely on ice to  
9 maintain cooling at night, and operate completely off the  
10 electrical grid.

11       The legislature further finds that similar cost-effective  
12 technology and renewable energy resources may be used in the  
13 State to provide air conditioning in public school classrooms  
14 during daytime hours. Many public school facilities do not have  
15 the electrical wiring that is necessary to support traditional  
16 air-conditioning systems. Much of the cost of air conditioning  
17 schools is due to the cost of upgrading schools' electrical



1 wiring to support backing up air-conditioning systems. That  
2 cost is prohibitive and leaves students and teachers suffering  
3 in conditions that interfere with learning.

4 However, classrooms only need air conditioning during the  
5 day. Therefore, classrooms may be cooled exclusively through  
6 the use of an off-grid, direct current, exclusively solar  
7 powered system, without having to upgrade the electrical wiring  
8 for the school. Even on cloudy days, solar power systems will  
9 decrease the humidity in a classroom and make a classroom more  
10 comfortable. Off-grid, exclusively solar powered air-  
11 conditioning systems are a viable, cost-effective alternative to  
12 traditional air-conditioning systems.

13 The purpose of this Act is to require the department of  
14 education to implement a pilot program to provide ten public  
15 school classrooms with air conditioning using an off-grid,  
16 exclusively solar powered system at each school.

17 SECTION 2. (a) The department of education shall examine  
18 solar power systems that are used in developing countries and  
19 implement a pilot program to provide ten public school  
20 classrooms with air conditioning using a solar power system at  
21 each school; provided that each solar power system is powered by



1 solar or photovoltaic panels and not connected to the electrical  
2 grid.

3 (b) The department of education shall submit a report of  
4 its findings and recommendations, including any proposed  
5 legislation, to the legislature no later than twenty days prior  
6 to the convening of the regular session of 2017.

7 SECTION 3. There is appropriated out of the general  
8 revenues of the State of Hawaii the sum of \$ or so  
9 much thereof as may be necessary for fiscal year 2016-2017 for  
10 the department of education to implement a pilot program to  
11 provide ten public school classrooms with air conditioning using  
12 a solar power system at each school; provided that each solar  
13 power system is powered by solar or photovoltaic panels and not  
14 connected to the electrical grid.

15 The sum appropriated shall be expended by the department of  
16 education for the purposes of this Act.

17 SECTION 4. The director of finance is authorized to issue  
18 general obligation bonds in the sum of \$ or so much  
19 thereof as may be necessary and the same sum or so much thereof  
20 as may be necessary is appropriated for fiscal year 2016-2017 to  
21 the department of education to implement a pilot program to




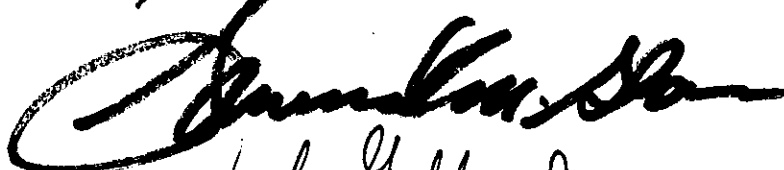

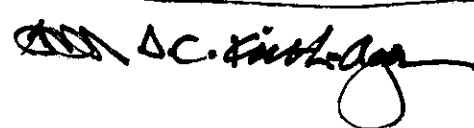
1 provide ten public school classrooms with air conditioning using  
2 a solar power system at each school; provided that each solar  
3 power system is powered by solar or photovoltaic panels and not  
4 connected to the electrical grid.

5 The sum appropriated shall be expended by the department of  
6 education for the purposes of this Act.

7 SECTION 5. The appropriation made for the capital  
8 improvement project authorized by this Act shall not lapse at  
9 the end of the fiscal biennium for which the appropriation is  
10 made; provided that all moneys from the appropriation in  
11 section 4 that are unencumbered as of June 30, 2018, shall lapse  
12 as of that date.

13 SECTION 6. This Act shall take effect on July 1, 2016.

14 INTRODUCED BY:



# S.B. NO. 2349

**Report Title:**

Department of Education; Air Conditioning; Solar Power Systems; Pilot Program; Appropriation; General Obligation Bonds

**Description:**

Requires the department of education to implement a pilot program to provide ten public school classrooms with air conditioning using a solar power system at each school; provided that each solar power system is powered by solar or photovoltaic panels and not connected to the electrical grid. Authorizes general obligation bonds and appropriates funds for the pilot program.

*The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.*

